

Technical Area: Traffic and Transportation

Author: Ken Peterson

BACKGROUND

Local streets and State highways will be used for project construction and operations traffic. The AFC states that neither the City of Blythe nor Riverside County has LORS relating to traffic issues on local rural roadways (AFC p. 7.4-27).

DATA REQUEST 81. Please discuss any City and County LORS relating to use of local roads and State highways including City and County general plan circulation elements.

RESPONSE TO DATA REQUEST 81: Table 7.4-10 of the BEP II AFC describes the local traffic LORS for the project, including the City of Blythe's Circulation Element of the General Plan. The Circulation Element of the General Plan is also discussed in Section 7.4.2 of the AFC. This element of the General Plan identifies Level of Service (LOS) "C" as a potential traffic problem requiring examination. However, all roads within downtown Blythe are currently at LOS "A." As discussed on page 7.4-15 and as shown on Table 7.4-6 of the AFC, the added project construction traffic will not result in significant impacts on the level of service.

Riverside County LORS related to traffic are found in the recently published *Hearing Draft* of the County of Riverside General Plan (Riverside County Integrated Project 2000) (http://www.rcip.org/general_plan_toc.html). The Circulation Element identifies LOS "C" as the target Level of Service for all County maintained roads and conventional state highways. As described in the AFC, local roads are at LOS "A" with the addition of project construction traffic. Therefore, the project is consistent with the County's Draft Circulation Element policies, and no significant traffic impacts are anticipated.

Additionally, we offer the following:

The City of Blythe General Plan (adopted in September of 1989) reads as follows:

Circulation Goal

The provision of a circulation system that allows for the efficient and safe movement of people, vehicles, and goods through transportation facilities that meet the current demands and projected needs of the community, while maintaining and projecting the rural character of the community.

Circulation Policies

Allow for adequate truck routes within the City, while maintaining acceptable traffic safety conditions. Truck routes shall be restricted to I-10, Intake Boulevard, 16th Avenue, 18th Avenue, Neighbors Boulevard and Mesa Drive, and all truck routes shall be appropriately signed and enforced.

The City shall allow the interim use of Lovekin Boulevard as a truck route until such time as alternative truck routes are developed which will relieve Lovekin Boulevard and provide adequate service for truck traffic.

The Blythe Municipal Code reads as follows:

Chapter 12.12

USE RESTRICTIONS ON PAVED STREETS

No motor or other vehicle, or other object or contrivance for moving loads, shall be operated or moved upon or over any paved street within the city, the weight of which, resting upon the surface of said street, exceeds seven hundred pounds upon any inch of width of tire, when said vehicle is equipped with pneumatic tires, nor more than six hundred fifty pounds upon any inch of width of tire, when said vehicle is equipped with solid rubber tires or rubber tires other than pneumatic...”

Please note that the use of local roads and State Highways during the Blythe I construction process complied with all recognized and enforced LORS. The same procedures are to be implemented during the construction of Blythe II.

BACKGROUND

The AFC states that the roads comprising the project construction truck routes are identified in the Circulation Element of the City General Plan as truck routes (AFC p. 7.4-10). However, staff review of the Circulation Element indicates that Hobsonway and Riverside Drive are not listed in the circulation element as truck routes.

DATA REQUEST 82. Please provide a reference from City documents if available demonstrating the appropriate use of Hobsonway and Riverside Drive as truck routes, or explain why these routes are appropriate for project construction truck traffic.

RESPONSE TO DATA REQUEST 82. There are no specific references from City documents related to the use of Hobsonway or Riverside Avenue for truck traffic as indicated in Response #81 above. Hobsonway, however, was used as a truck traffic route for all of the truck deliveries including the heavy haul deliveries of certain rotating equipment and step up transformers. The CEC, CBO and the City of Blythe, Department of Public Works, approved the transportation operation via the following documents

- Drawing: Blythe Energy Project Traffic Control Plan for Transporting CT and Generator Units, Sheet 1 of 1, dated 08/23/01.
- Submittal: Trans 4, Trans 1290-3. Description: Blythe Energy Project Siemens Westinghouse.
- Traffic Control Plans, T-1 and T-2 for Transformers, dated 02/27/02.

The same transportation operation procedures that were successfully used for Blythe Energy Project I will be implemented during the construction of BEP II. All documentation including a BEP II Traffic Plan will again be submitted for review and approval by CEC and the City of Blythe.

BACKGROUND

The altitude of aircraft using the airport instrument landing system (ILS) over the Blythe II stacks would be approximately 215 feet and the height of the aircraft over the HRSG stacks would be about 143 feet according to the AFC (p. 7.4-8). However, using AFC data, staff has assessed that apparently this distance between aircraft and the top of the stacks would be 85 feet. The ILS is used primarily for private training purposes (BEP II AFC 2002, p. 7.4-8). The BEP II stacks are outside of the ILS approach envelope, so planes using the ILS would not fly over the stacks on ILS approach (BEP II AFC 2002, p. 7.4-8).

DATA REQUEST 83. Please explain the methodology for calculation of the distance between planes using the ILS and the Blythe II stacks.

Please provide:

- a. Data on the number of planes not using the ILS approach.
- b. Whether any of these planes would fly over the stacks.
- c. The minimum distance between these planes and the stacks.

RESPONSE TO DATA REQUEST 83. The provisional ILS approach (not certified for use by FAA) does not pass over the BEP II stacks or cooling towers. The BEP II stacks are located 1500 ft. south of the runway centerline, and 4750 ft. east of the end of Runway 26, the runway used for the practice ILS approach. The BEP stacks and all power island equipment are located outside of the runway emergency touchdown zone,

the outer safety zone, and the extended runway centerline zone. See **Responses to Data Requests 35, 36 and 37** for further discussion of the land use zones and compatibility of BEP II. The ILS approach requires the plane to fly straight on to the runway centerline and no lower than a 2.9 degree descent angle calculated from the end of the runway. Using the minimum flight path allowed in the ILS approach, the planes practicing this approach would pass approximately 138 ft. above, and 1500 feet north from the stacks. Planes not using the practice ILS approach, and landing using a left hand pattern on Runway 26, would turn their base leg well in advance of the location of the BEP II facilities, typically one half mile from the end of the runway. Planes would start their pattern at 1000 ft AGL and complete the approach within standard turn radiuses for the type of plane. A typical standard rate turn with a constant rate of descent would place the airplane approximately 1700 feet west of the stacks and 586 feet above the runway elevation (or 511 feet above the BEP II stacks) at its nearest point to the BEP II stacks. In addition:

- a. There is no recorded data on use of the ILS approach. The ILS approach is not a certified FAA approach and is used for ILS practice training by the local fixed based operator at the airport.
- b. Planes using the ILS approach do not fly over the stacks.
- c. The minimum distance between the planes flying an ILS approach and the stacks would be approximately 1500 feet.

BACKGROUND

Construction materials and power plant equipment would be delivered to the BEP II site by truck via I-10, SR-78, or US-95 (Blythe II AFC 2002, p. 7.4-10). The AFC discusses the truck/other traffic mix for I-10 and the BEP II construction impact on this mix. (p. 7.4-10).

DATA REQUEST 84. Please submit a similar discussion of construction period truck/traffic impact for:

- a. **SR-78 and SR-95;**
- b. **All highway interchanges;**
- c. **All highway entry/exit ramp connections with local roads.**

RESPONSE TO DATA REQUEST 84

- a. Truck traffic for SR-78 and US-95 are presented in Table 84-1 of the BEP II AFC for total truck volumes and for trucks with 3-axles or over. The 3-axle trucks designation represent large haul vehicles. Except for concrete and small delivery trucks, the 3-axles or greater vehicles represent the most common truck types that will be delivering equipment and parts to the BEP II site.

TABLE 84-1. TRUCK TRAFFIC ESTIMATES					
LOCATION	Total Vehicles AADT	Total All Truck AACT		Total Trucks Over 3-Axles	
		AACT	Percent	AACT	Percent
State Route (SR)-78					
I-10 Junction	2,800	171	6.1	145	5.2
28 th Avenue/Neighbors Boulevard	1,600	120	7.5	102	6.4
United State (US)-95					
I-10 Junction	5,100	612	12.0	323	6.3
Palo Verde Dam Road	1,500	270	18.0	141	9.5

2000 Annual Average Daily Truck Traffic on the California State Highway System, December 2001
 AADT – Average Annual Daily Traffic

As indicated on page 7.4-10 of the AFC, the peak daily truck traffic to the BEP II site will be 31 trucks or 62 round trips, and the average truck traffic will be 11 trucks or 22 round trips. With the exception of concrete trucks, the vast majority of trucks to the BEP II site will travel from distant locations to the east and west of the project site using I-10. It is estimated that I-10 peak truck traffic volume will be 15 trucks, and the average traffic volume will be 6 trucks. Therefore, truck traffic on SR-78 and US-95 will have a combined peak daily traffic volume of 16 trucks and an average truck volume of 5 trucks.

As shown in Table 84-1, trucks do not frequently use SR-78. Additionally, this route will not be used to any great extent to deliver equipment and parts to the BEP II site, because major manufacturers are not located in the Dan Diego or Yuma region, the general terminus of routes to SR-78. Therefore, it is estimated that the peak hour traffic volume on this highway will be two trucks round trips per day. This will result in an increase of approximately 0.2 percent on SR-78. Average truck volumes would result in about a 0.1 percent increase.

US-95 has a heavier traffic volume than SR-78. The main truck traffic on US-95 will be from the ready mix concrete batch plant east of the City of Blythe. It is estimated that peak hour traffic volume on US-95 will be 14 trucks per day. This represents an increase of approximately 0.5 percent. The average truck volumes would result in about a 0.2 percent.

b. The main highway intersections affected by truck traffic will be the following:

- East Riverside Drive and US-95 (North Intake Boulevard)
- I-10 and US-95 (Intake Boulevard)
- I-10 and North Lovekin Boulevard

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- I-10 and SR-78 (Neighbors Boulevard)
- I-10 and Mesa Drive

The truck impacts to East Riverside Drive/US-95, I-10/US-95, and I-10/North Lovekin Boulevard intersections will be concrete trucks traveling from the batch plant east of the City of Blythe, because this is the designated route for these vehicles. As discussed above, it is estimated that peak daily traffic volume of 16 trucks and an average truck volume of 5 trucks will use US-95. These peak hour and average truck traffic would likely represent concrete trucks.

The truck impacts to the I-10/SR-78 and I-10/Mesa Drive intersections will be from long-haul vehicles traveling to the BEP II site from eastern or western location along I-10. As estimated above, the I-10 peak truck traffic volumes will be 15 trucks and the average traffic volumes will be 6 trucks. The trucks traveling to the site will use both of these intersections. For example, trucks arriving from the east would likely get off at the I-10/SR-78 interchange, deliver their load, and then get on I-10 at the Mesa Drive interchange. Truck traffic at the I-10/SR-78 would be a little higher due to truck traffic directly traveling on SR-78. The increase in traffic volumes at the intersections are provided in Table 84-2.

TABLE 84-2. TRUCK TRAFFIC AT INTERSECTIONS			
Location	AADT	Peak Truck Increase	Percentage Increase
East Riverside Drive and US-95 (North Intake Boulevard)*	5,100	14	0.28
I-10 and US-95 (Intake Boulevard)	5,100	14	0.28
I-10 and North Lovekin Boulevard – East	18,400	29	0.16
I-10 and North Lovekin Boulevard – West	18,200	29	0.16
I-10 and SR-78 (Neighbors Boulevard) - North	2,800	17	0.61
I-10 and Mesa Drive - East	17,100	15	0.09
I-10 and Mesa Drive - West	16,300	15	0.09

Estimated number of vehicles per day, based on 2000 Caltrans traffic counts.

* No direct data counts for this location is available so this is an estimate.

Peak truck traffic volumes provided Table 84-2 are estimates derived on one direction. For example at I-10/North Lovekin Boulevard – East interchange, 15 trucks will arrive along I-10 from distance locations to the east and 14 trucks (concrete) will reach the interchange from US-95.

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I-10 interchanges in the Blythe area do not experience heavy traffic volumes or use. Therefore, no significant impact will occur as a result of the small volumes of trucks arriving at or departing from the BEP II site. The concrete batch plant has been operating at its current site for a number of years. Therefore, local residence, drivers, and roads are set up to handle the traffic generated by this plant.

c. The main highway entry/exit ramp connections with local roads are given as follows:

- I-10 and US-95 (Intake Boulevard)
- I-10 and North Lovekin Boulevard
- I-10 and SR-78 (Neighbors Boulevard)
- I-10 and Mesa Drive

Concrete trucks traveling to the site from the batch plant located east of the City of Blythe will only use I-10/US-95 and the I-10/North Lovekin Boulevard exit and entry ramps. The I-10/US-95 ramps will be used to access Lovekin Boulevard via I-10. The I-10/North Lovekin Boulevard ramp will be used to provide access to Hobsonway and then east to the BEP II site. Peak truck traffic at these ramps will be approximately 28 round trips per day.

The I-10/SR-78 ramps will be used to provide access for trucks using the SR-78, for east bound trucks leaving the BEP II site, and for west bound trucks arriving to the BEP II site. This ramp is east of the project site and used to provide access to and from Hobsonway. Peak daily truck traffic at this location is approximately 34 round trips.

The I-10/Mesa Drive is located west of the BEP II site. This ramp will be used to provide access to and from the power plant. Traffic using this ramp will be for west bound trucks leaving the BEP II site and for east bound trucks arriving to the BEP II site. Peak truck traffic at this location is approximately 30 round trips per day.

Except for the I-10/North Lovekin Boulevard entry and exit ramps, most ramps are located away from populated areas in the City of Blythe. Therefore, they do not experience heavy traffic volumes or use. Due to the small volumes of trucks using these ramps, truck traffic on them would not significantly impact local traffic.

BACKGROUND

The California Department of Transportation (Caltrans) is planning roadway construction work in road areas that may be used for movement of project construction equipment and material. The City Planning Department staff has verbally indicated the possibility of conflict between Blythe II construction and planned City improvements for Hobsonway and Commercial Street. Riverside

County prepares an annual Transportation Improvement Program which may include potential projects in the Blythe area.

DATA REQUEST 85. Please discuss whether the following planned Caltrans construction projects may conflict with Blythe II construction, and how any conflict would be resolved:

- a. Rte 95: Near Blythe from .2 km north of "C" Canal to .8 km north of Palo Verde Dam Rd.; widen shoulders & rehabilitate; start Spring 03 end Fall 04
- b. Rte 10: In Blythe from .3 km west of Lovekin Blvd UC to .3 km east of 10/95; highway planting restoration; Jan 02-Summer 93
- c. Rte 10: Near Blythe .7 km north of Wiley Hill Log Cabin to 1.5 km south of Wilson Rd.; drainage improvements; winter 03-fall 04
- d. Rte 10: Blythe Pedestrian overcrossing; install wheelchair ramps; early 03-fall 03
- e. Rte. 10: relocate Wiley's Well State River Recreation Area; no dates
- f. Rte 10: In Riverside County, 17.5 miles west of Blythe, at Wileys Well safety roadside rest area; replace recreational vehicle dump station and remove and replace sidewalk; no dates

RESPONSE TO DATA REQUEST 85: The California Department of Transportation District 8 has several construction projects scheduled in the Blythe area over the next couple of years. At a meeting held on September 16, 2002 at the Caltrans office in San Bernardino, CA. with Transportation Engineer Kiet Van Ly and Carlos Beltran (The Holt Group-Project Consultant), the following projects were discussed. It was pointed out by Mr. Van Ly that there is no possibility of conflicts between state projects and the construction of Blythe II:

- A) I-95 shoulder overlay. Project scheduled to begin construction September 2003 and continue through August 2004. Mr. Van Ly stated I-95 will be open at all times for thru traffic. One lane would be closed at a time, with Caltrans providing pilot cars for traffic. Project Manager Li, ID# 08.107.
- B) I-10 Highway Planting Restoration, Post Marker RIV 010 151.9 to RIV 010 154.5. Project scheduled to be completed July 2003. I-10 eastbound and westbound lanes will be open for thru traffic at all times. Project Manager Morthig, ID# 08.112., Project Engineer Figueroa, ID# 08.340.
- C) I-10 Drainage Improvements. At approximately .7km north of Wiley Hill Log Cabin to 1.5 km south of Wilson Road. No information available.
- D) I-10 Blythe Pedestrian Overcrossing and Installation of Wheelchair Ramps. Post Marker RIV 010 152.9 to RIV 010 153.0. Project scheduled to begin construction

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in January 2003 and scheduled to be completed September 2003. I-10 eastbound and westbound lanes will be open for thru traffic at all times. Project Manager Morthig, ID# 08.112., Project Engineer Stokes, ID# 08.260.

- E) I-10 Relocate Wiley's Well State River Recreational Area. Post Marker RIV 010 87.0 to RIV 010 138.0. Construction dates have not been scheduled. I-10 eastbound and westbound lanes will be open for thru traffic at all times. Project Manager Li, ID# 08.107., Project Engineer Figueroa, ID# 08.340.
- F) I-10 Replace RV Dump Station and Remove and Replace Sidewalk. Post Marker RIV 010 135.0. Project scheduled to begin construction in January 2003 and scheduled to be completed December 2003. I-10 eastbound and westbound lanes will be open for thru traffic at all times. Project Manager Morthig, ID# 08.112., Project Engineer Bui, ID# 08.235

DATA REQUEST 86. Please discuss any potential conflicts between planned Riverside County road improvement projects and Blythe II construction, and how these conflicts would be resolved.

RESPONSE TO DATA REQUEST 86: At a meeting held on September 16, 2002 between Carlos Beltran (The Holt Group – Project Consultant) and County Associate Civil Engineer Roy K. Null, P.E., potential conflicts between any planned Riverside County road improvement projects and the BEP II were discussed. Mr. Null concluded it is very unlikely to encounter any conflicts between the County's projects and the construction of BEP II. The County will either provide traffic detours or pilot cars during the road improvements.

DATA REQUEST 87. Please discuss the potential conflicts between Blythe II construction and the planned City road improvements discussed above, and any other planned City improvements.

RESPONSE TO DATA REQUEST 87. As a result of discussions that took place during the recent September 12, 2002 City Council Study Session, the Hobsonway Renovation Project is to undergo a redesign during the next few months. Project construction for the 4.5 million dollar endeavor is currently scheduled for April through November 2003. With the exception of a few temporary intersection closures, two-way traffic will be maintained along Hobsonway through the center of downtown Blythe. Other than potential minor traffic delays, there should be no conflict with BEP II construction activities. No other significant City roadway improvements projects are currently anticipated to take place during the BEP II construction period.

BACKGROUND

SR-78 may be used for transport of project construction material and equipment. There is a narrow bridge on SR-78 within 15 miles to the south of Blythe over which project construction material and equipment may have to be transported.

DATA REQUEST 88. Please discuss whether the above-referenced bridge would present any constraints to planned transport of project material and equipment.

RESPONSE TO DATA REQUEST 88. On Friday, September 13, 2002, a site inspection of SR-78 from Hobsonway southerly to Palo Verde was performed. A narrow bridge was observed 12.8 miles from Hobsonway near the intersection of SR-78 and Ludy Boulevard (ID No. BR-56-216 078 RIV 3-29). This bridge measured 25 feet wide and can accommodate two 12.5 feet lanes. Another narrow bridge was observed over the Palo Verde Outfall 17.5 miles from Hobsonway (ID No. BR-58-299R 78 IMP 79-19). This reinforced concrete bridge is supported by concrete columns and measure 28 feet wide and can accommodate two 14 foot lanes.

Both of the above bridges accommodate a significant amount of heavy truck traffic between the Palo Verde and Imperial Valleys. Any additional traffic generated by the construction of the BEP II will be insignificant.

BACKGROUND

For the transport of certain large project components during construction, the installation of temporary structural support (i.e. "jump bridges") at canal crossings along Hobsonway is planned due to weight restrictions at these canal crossings. The number and location of these canal crossings are not listed.

DATA REQUEST 89. Please provide:

- a. The location of the canal crossings which will receive the installation of temporary structural support.**
- b. The timeline for installation.**

RESPONSE TO DATA REQUEST 89

- a. The Westerly Canal is located on Hobsonway approximately 0.49 miles east of Neighbors Boulevard. This is an Imperial Valley Irrigation District's (PVID) "C-03" Canal. The Easterly Canal is on Hobsonway about 0.49 miles west of Lovekin Boulevard. This is PVID's "C" Canal.
- b. The installation duration for each temporary jump bridge will be approximately 2.5 hours. Temporary "jump bridges" will be used during the heavy haul of the two combustion turbines, three generators and three step up transformers. These heavy hauls are anticipated to take place between months 6 and 12 of the construction schedule. In the event that construction commences in July of 2003, this would place the activities in the first half of 2004. The heavy hauls are well planned in advance, plans are submitted to the City of Blythe (& CBO) for approval prior to commencement of the hauls, and are usually carried out during the night hours to minimize any impacts to local traffic.

BACKGROUND

AFC Section 7.5.2.2.2 indicates the potential for vapor plumes to be vented from the HRSG and cooling tower stacks. Traffic visibility may be impaired due to vapor plumes creating ground fog conditions on nearby roadways. This may affect traffic safety on Interstate 10 and local roadways in the vicinity of the project site.

DATA REQUEST 90. Please provide information based on your plume analysis for:

- a. The roadways that may be affected.**
- b. The expected frequency of ground fog conditions created by plumes.**
- c. Traffic safety issues resulting from the plumes and related ground fog.**
- d. Plans to mitigate any visibility impact the plumes/ground fog could have on traffic safety.**

RESPONSE TO DATA REQUEST 90. The vapor plume from the cooling tower stacks has been analyzed for potential impacts to traffic safety on nearby roadways and the modeling results show that there would be no impacts due to vapor plumes. The HRSG stack exhausts will not cause ground level visible vapor plumes and will not present a potential for impacting traffic safety. The modeling files for this analysis are included on a CD as a loose submittal with this document to the CEC project manager.